

REMARKS

Claims 1, 3-9, 16-18, 20-21, and 23-26 are pending in the application. Reconsideration and allowance of the application are respectfully requested.

The Office Action does not establish that claims 1, 3-9, 16-18, 20, 21, and 23-26 are unpatentable under 35 USC § 103(a) over “Cooper” (“Enhanced Code Compression for Embedded RISC Processors” by Cooper et al.) in view of “Iwasawa” (U.S. Patent No. 4,833,606 to Iwasawa et al.), and further in view of “Powell” (U.S. Patent No. 5,606,698 to Powell). The rejection is respectfully traversed because all the limitations are not shown to be suggested by the Cooper-Iwasawa-Powell combination, and a proper motivation for making the Cooper-Iwasawa-Powell combination has not been provided.

Regarding independent claim 1, the Office Action does not show that the teachings of the cited references correspond to claim limitations of converting in the program code, each data constant in each keyword statement to a data array reference. The Office Action acknowledges that Cooper does not disclose converting in the program code, each data constant in each keyword statement to a data array reference (*see, e.g.*, page 3, lines 11-16) but relies on portions of Iwasawa (Abstract; FIGs. 2A and 7A; col. 4, l. 28-44; col. 3, l. 23-32) to provide what is missing from Cooper. However, the cited portions of Iwasawa teach replacing a variable with a temporary array (*see, e.g.*, col. 3, lines 38-66, and col. 4, lines 28-44). Those skilled in the art will recognize that Iwasawa’s variable is not a data constant. Thus, Iwasawa does not appear to teach converting a data constant to a data array reference as claimed. Independent claims 16, 21, and 26 include similar limitations, and the Cooper-Iwasawa-Powell combination is not shown to suggest all the claim limitations for at least the reasons set forth above for claim 1.

The alleged motivation for combining the teachings of Iwasawa with Cooper is unsupported by evidence and improper. The alleged motivation for making the combination is “to prepare the program code for vectorization to improve its execution efficiency.” It will be recognized, however, that Cooper’s approach is for embedded RISC processors (Title), while Iwasawa’s approach is for a super computer that has vector registers (col. 1, l. 1-25). Since Cooper’s RISC processor would have no vector

registers, Iwasawa's approach would be incompatible with Cooper's system. Not only is Iwasawa's approach incompatible with Cooper's approach, the alleged motivation is simply a statement of Iwasawa's function that is unsupported by evidence to make the combination. Therefore, the alleged motivation for combining Iwasawa with Cooper is improper.

As to claim 3, the limitations are not shown by Office Action to be suggested by Iwasawa. The limitations specify that the converting includes assigning an array index value to the data array reference where each located keyword statement is assigned to a next sequential value of the array index value. Iwasawa's col. 4, l. 28-44 discusses replacing a single variable, S, with a temporary array. Those skilled in the art will recognize that a single variable does not correspond to each keyword statement being assigned a next sequential array index value. Since Iwasawa describes only one variable, there is no other keyword statement that would be assigned to a next sequential array index value. Thus, the limitations of claim 3 are not shown to be suggested by the Cooper-Iwasawa-Powell combination.

Claim 4 includes limitations of comparing data array references of two converted keyword statements from the program code; and determining if the array index values from the data array references match in size and sequential order. The cited portion of Iwasawa discusses determining "whether there exists the variable bearing the twice loop transportation dependence" (col. 7, l. 48-55). However, the relevance is not reasonably apparent to the step of "determining if the array index values from the data array references match in size and sequential order." The cited portion discusses neither the size nor the sequential order of array index values. Therefore, the limitations are not shown to be suggested by Iwasawa. If the rejection is maintained, an explanation of those specific elements of Iwasawa thought to correspond to these limitations is respectfully requested since Iwasawa's description is not reasonably clear.

Claims 5-9 depend from claim 1, claims 17-18, and 20 depend from claim 16, and claims 23-26 depend from claim 21. These dependent claims further refine the limitations of the base claims, and the limitations are not shown to be suggested by the Cooper-Iwasawa-Powell combination for at least the reasons set forth above.

Applicant respectfully requests that the rejection of claims 1, 3-9, 16-18, 20, 21, and 23-26 be withdrawn because a *prima facie* case of obviousness has not been established.

CONCLUSION

Reconsideration and a notice of allowance are respectfully requested in view of the Remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patent, P.O. Box 1450, Alexandria, Virginia 22313-1450, on October 2, 2006.

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